



June 3, 2022

Coronado National Forest
Santa Catalina District Ranger, c/o Deborah Bradley
300 West Congress Street
Tucson, AZ 85701

Electronically submitted to: <https://cara.fs2c.usda.gov/Public//ReadingRoom?Project=62051>

RE: Wedgetail Exploration Drilling project in the Coronado National Forest.

Dear Ms. Bradley:

The Arizona Game and Fish Department (Department) appreciates the opportunity to provide input in the scoping process for the Wedgetail Exploration Drilling (WED) project on the Coronado National Forest (Forest), Santa Catalina Ranger District, and understands that the Forest has determined from a preliminary review of this action that it qualifies under the National Environmental Policy Act (NEPA) as a Categorical Exclusion (CE). Should the Forest determine that an Environmental Assessment (EA) is necessary, the Department requests that the Forest consider the Department as a resource in preparation of the EA and to coordinate informally at any time via phone or email.

The Department understands that the project includes exploration drilling for locatable mineral deposits at 11 selected drill sites. Drilling equipment would consist of two Boart Longyear track-mounted hydraulic diamond drill rigs (7'x9'), two pipe trucks (8'x10'), CAT bulldozer (15'x8'), track hoe (20'x8'), water truck, two diesel water pumps (27 gallon/minute capacity), two diesel generators, four support vehicles, grader, and two outdoor light plants. The Proponent would drill five boreholes at each of the 11 drill sites to obtain data from all general directions (straight down and 45 degrees north, south, east, and west) for a total of 55 boreholes initially. The initial 55 boreholes would take approximately 24 weeks to complete, at which time, additional drilling may be needed.

Under Title 17 of the Arizona Revised Statutes, the Department, by and through the Arizona Game and Fish Commission (Commission), has jurisdictional authority and public trust responsibilities to conserve and protect the state fish and wildlife resources. In addition, the Department manages threatened and endangered species through authorities of Section 6 of the Endangered Species Act and the Department's 10(a)1(A) permit. It is the mission of the Department to conserve and protect Arizona's diverse fish and wildlife resources and manage for safe, compatible outdoor recreation opportunities for current and future generations. For your consideration, the Department provides the following comments based on the agency's statutory

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5000 W. CAREFREE HIGHWAY, PHOENIX AZ 85086

GOVERNOR: DOUGLAS A. DUCEY **COMMISSIONERS:** CHAIRMAN LELAND S. "BILL" BRAKE, ELGIN | JAMES E. GOUGHNOUR, PAYSON
TODD G. GEILER, PRESCOTT | CLAY HERNANDEZ, TUCSON | KURT R. DAVIS, PHOENIX **DIRECTOR:** TY E. GRAY **DEPUTY DIRECTOR:** TOM P. FINLEY

authorities, public trust responsibilities, and special expertise related to wildlife resources and recreation.

Attached for your review is a report (ERT; HGIS-16434) from the Department's online Environmental Review Tool (ERT). This ERT report can also be viewed at <https://ert.azgfd.gov/>. The ERT report provides a special status species list for Phase 1 Environmental Compliance and NEPA documents, and provides information and guideline links for incorporating wildlife conservation into project planning. This information can be used to guide preliminary decisions and assessments of proposed land and water development, management, and conservation projects.

The ERT report indicates that the Mexican spotted owl, a federally listed threatened species under the Endangered Species Act (ESA), Protected Activity Centers (PACs) have been documented less than a mile from the project area, and the project area is in Critical Habitat for the MSO. If effects are anticipated from the project to the MSO, or critical habitat for the MSO, or it is anticipated the project will not be in compliance with the ESA, the Department recommends that the Forest continue coordination with the [U.S. Fish and Wildlife Service](#)¹ (USFWS) for their Technical Assistance on MSO PACs or known MSO nest or roost locations.

The ERT report indicates the project area is in a modeled wildlife habitat connectivity area - the [Santa Catalina/Rincon - Galiuro Connectivity Assessment](#)². The Department recommends project planning and implementation efforts geared toward maintaining wildlife connectivity in the area. The ERT report also indicates that lowland leopard frogs have been observed in several locations along the Control Road, in Geesaman Wash and in Alder Canyon - within close proximity of an identified drill pad. The project footprint appears to occur primarily along dry ridgelines and the Plan of Operations (PO) states that Wedgetail will avoid all aquatic features, which should reduce the impacts to amphibians.

The Department notes that the PO discusses a Biological Evaluation which has been prepared and also lists mitigations for federally listed species and habitat, and United States Forest Service sensitive species. The Department requests that the Forest evaluate the project in the context of Arizona's State Wildlife Action Plan (SWAP), and ensure that potential effects to Species of Greatest Conservation Need (SGCN) (such as lowland leopard frogs) are evaluated and considered. If an EA document is required, the Department requests it contain a discussion of the Department's conservation policies underlying the SWAP, and include analysis of project impacts to the SGCN and Species of Economic and Recreational Importance (SERI) such as the whitetail deer, identified in the attached ERT report.

The nearby Control Road provides the only continuous motorized access between the top and bottom of the mountain in this area and hunters and other wildlife related recreationists are likely to use this part of the forest. The Department requests the Forest consider potential conflicts with

¹ <https://www.fws.gov/office/arizona-ecological-services/contact-us>

²For information pertaining to the linkage assessment and wildlife species that may be affected, please refer to: <https://www.azgfd.com/wildlife/planning/habitatconnectivity/identifying-corridors/>

users, including recreationists from implementation of the project, and identify opportunities to ensure access is not affected during drilling operations.

The Department would like to draw your attention to a correction on page one, section 1.1 of the PO, which states: "The name of the Project is: Wedgetail Exploration Drilling Project, Coronado National Forest, Santa Catalina Ranger District, **Pinal County** [emphasis added], Arizona." The project is located in Pima County, this title may cause confusion among reviewers. Additionally, Pima County owns the property to the south, immediately adjacent to the project. The Department noted one drill pad appears to block access to this parcel on the only access road visible on the map. Pima County owns this property as part of their Conservation Lands System and has placed restrictive covenants on the property to preserve its conservation value, particularly for wildlife under their Multi Species Conservation Plan. The Department recommends the Forest coordinate closely with Pima County on this project.

Thank you for the opportunity to provide input on the WED project. For further coordination, please contact Tracy C. Bazelman at tbazelman@azgfd.gov or 623-236-7513.

Sincerely,



Luke Thompson

Branch Chief - Habitat Evaluation and Lands

AZGFD # M22-05061646

Arizona Environmental Online Review Tool Report



Arizona Game and Fish Department Mission

To conserve Arizona's diverse wildlife resources and manage for safe, compatible outdoor recreation opportunities for current and future generations.

Project Name:

Wedgetail Exploration Drilling

User Project Number:

M22-05061646

Project Description:

Exploration drilling for locatable mineral deposits at 11 selected drill sites. Drilling equipment would consist of two Boart Longyear track-mounted hydraulic diamond drill rigs (7'x9'), two pipe trucks (8'x10'), CAT bulldozer (15'x8'), track hoe (20'x8'), water truck, two diesel water pumps (27 gallon/minute capacity), two diesel generators, four support vehicles, grader, and two outdoor light plants. The Proponent would drill five boreholes at each of the 11 drill sites to obtain data from all general directions (straight down and 45 degrees north, south, east, and west) for a total of 55 boreholes initially. If additional data is needed, the Proponent would require flexibility in drilling up to 10 boreholes at some of the drill sites. The drill rigs to be used are capable of drilling approximately 230 feet (ft) per day; each borehole would be approximately 1,400 ft in length; therefore, the Proponent estimates that each borehole would require approximately 6.1 days to drill. There would be two drill rigs used in the proposed operations; therefore, the initial 55 boreholes would take approximately 168 days or 24 weeks (approximately 5.6 months). The rest of the boreholes, if needed, would be drilled during the remaining time available for drilling operations (no more than 4.4 months). The drilling operations would not exceed 10 months in time, to allow for successful reclamation of the project area within the 12-month implementation timeline. The estimated maximum disturbance of NFS lands for this project is 1.28 acres. Site reclamation would begin where possible in the third month of the project when testing results would be completed from initial drilling. Monitoring and adaptive management of reclamation techniques to promote successful regrowth and manage noxious weeds would occur in months 4 through 12. The last site and associated access would be reclaimed in the tenth month from project commencement, allowing for two months of reclamation monitoring and adaptive management.

Project Type:

Mining, Exploration

Contact Person:

Region5 Habitat Program

Organization:

Arizona Game and Fish Department

On Behalf Of:

AZGFD

Project ID:

HGIS-16434

Please review the entire report for project type and/or species recommendations for the location information entered. Please retain a copy for future reference.

Disclaimer:

1. This Environmental Review is based on the project study area that was entered. The report must be updated if the project study area, location, or the type of project changes.
2. This is a preliminary environmental screening tool. It is not a substitute for the potential knowledge gained by having a biologist conduct a field survey of the project area. This review is also not intended to replace environmental consultation (including federal consultation under the Endangered Species Act), land use permitting, or the Departments review of site-specific projects.
3. The Departments Heritage Data Management System (HDMS) data is not intended to include potential distribution of special status species. Arizona is large and diverse with plants, animals, and environmental conditions that are ever changing. Consequently, many areas may contain species that biologists do not know about or species previously noted in a particular area may no longer occur there. HDMS data contains information about species occurrences that have actually been reported to the Department. Not all of Arizona has been surveyed for special status species, and surveys that have been conducted have varied greatly in scope and intensity. Such surveys may reveal previously undocumented population of species of special concern.
4. HabiMap Arizona data, specifically Species of Greatest Conservation Need (SGCN) under our State Wildlife Action Plan (SWAP) and Species of Economic and Recreational Importance (SERI), represent potential species distribution models for the State of Arizona which are subject to ongoing change, modification and refinement. The status of a wildlife resource can change quickly, and the availability of new data will necessitate a refined assessment.

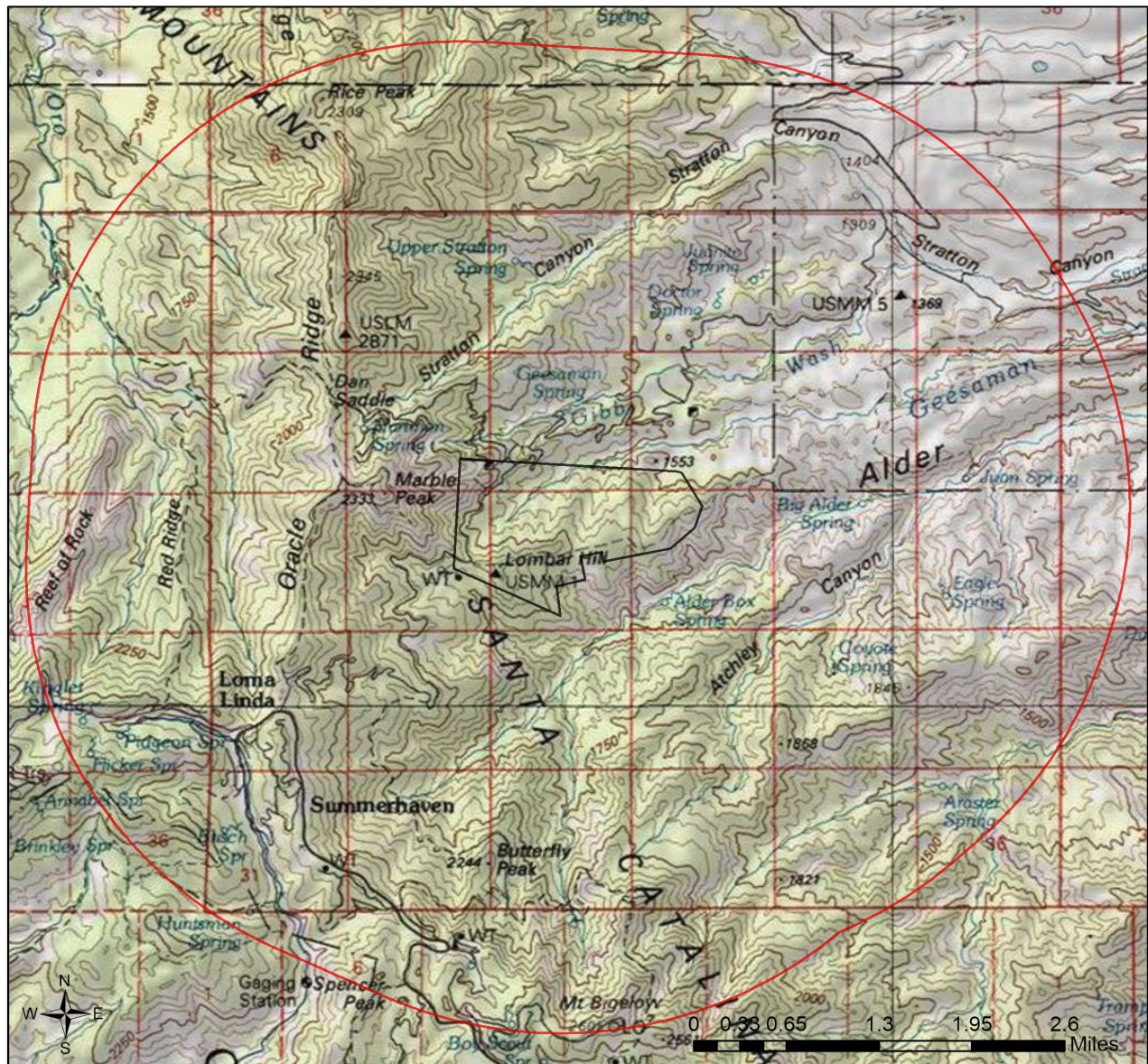
Locations Accuracy Disclaimer:

Project locations are assumed to be both precise and accurate for the purposes of environmental review. The creator/owner of the Project Review Report is solely responsible for the project location and thus the correctness of the Project Review Report content.

Recommendations Disclaimer:

1. The Department is interested in the conservation of all fish and wildlife resources, including those species listed in this report and those that may have not been documented within the project vicinity as well as other game and nongame wildlife.
2. Recommendations have been made by the Department, under authority of Arizona Revised Statutes Title 5 (Amusements and Sports), 17 (Game and Fish), and 28 (Transportation).
3. Potential impacts to fish and wildlife resources may be minimized or avoided by the recommendations generated from information submitted for your proposed project. These recommendations are preliminary in scope, designed to provide early considerations on all species of wildlife.
4. Making this information directly available does not substitute for the Department's review of project proposals, and should not decrease our opportunity to review and evaluate additional project information and/or new project proposals.
5. Further coordination with the Department requires the submittal of this Environmental Review Report with a cover letter and project plans or documentation that includes project narrative, acreage to be impacted, how construction or project activity(s) are to be accomplished, and project locality information (including site map). Once AGFD had received the information, please allow 30 days for completion of project reviews. Send requests to:
Project Evaluation Program, Habitat Branch
Arizona Game and Fish Department
5000 West Carefree Highway
Phoenix, Arizona 85086-5000
Phone Number: (623) 236-7600
Fax Number: (623) 236-7366
Or
PEP@azgfd.gov
6. Coordination may also be necessary under the National Environmental Policy Act (NEPA) and/or Endangered Species Act (ESA). Site specific recommendations may be proposed during further NEPA/ESA analysis or through coordination with affected agencies

Wedgetail Exploration Drilling USA Topo Basemap With Locator Map



- Buffered Project Boundary
- Project Boundary

Project Size (acres): 816.49

Lat/Long (DD): 32.4676 / -110.7209

County(s): Pima

AGFD Region(s): Tucson

Township/Range(s): T11S, R16E

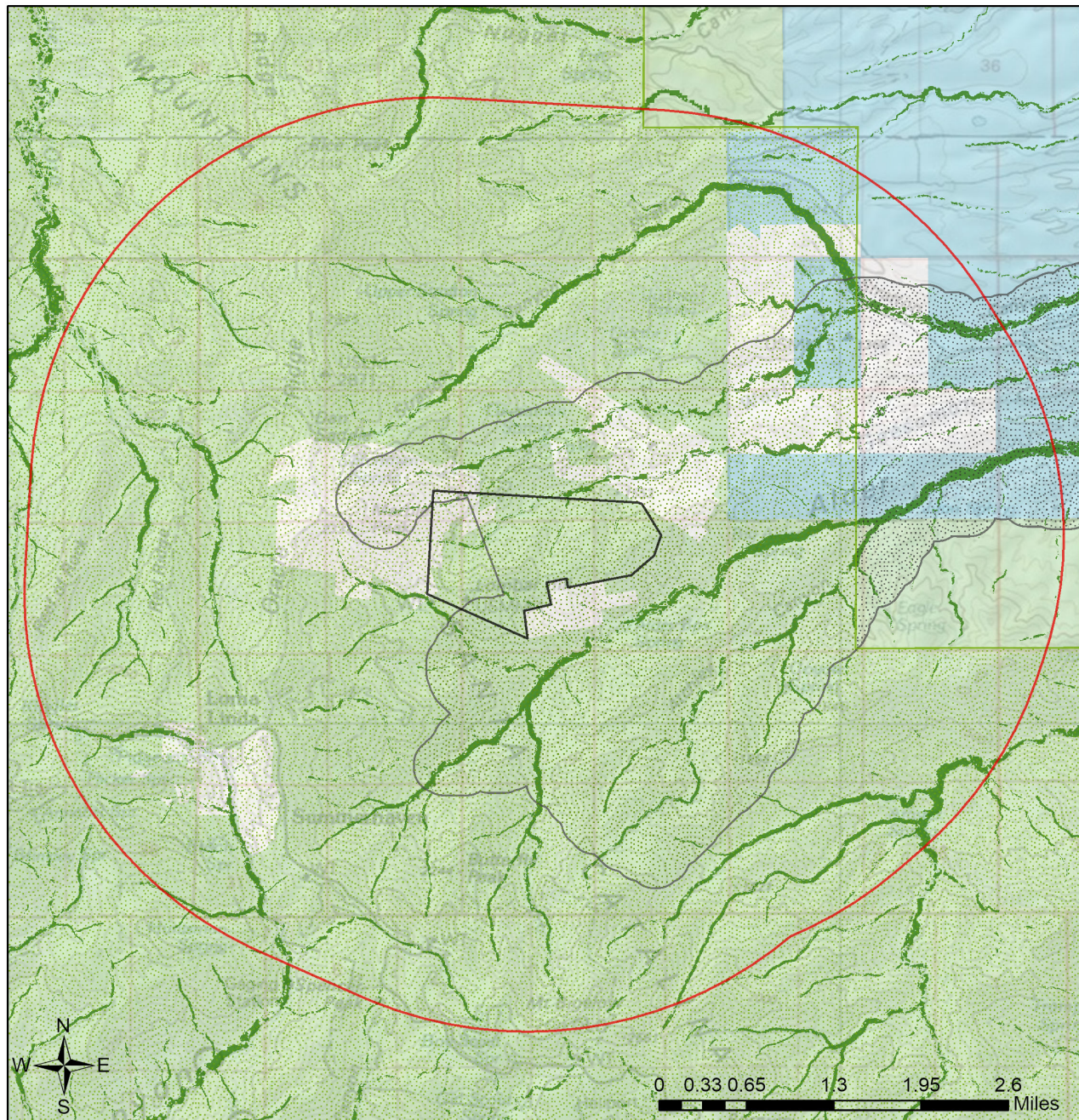
USGS Quad(s): MOUNT BIGELOW

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community



Wedgetail Exploration Drilling

Web Map As Submitted By User

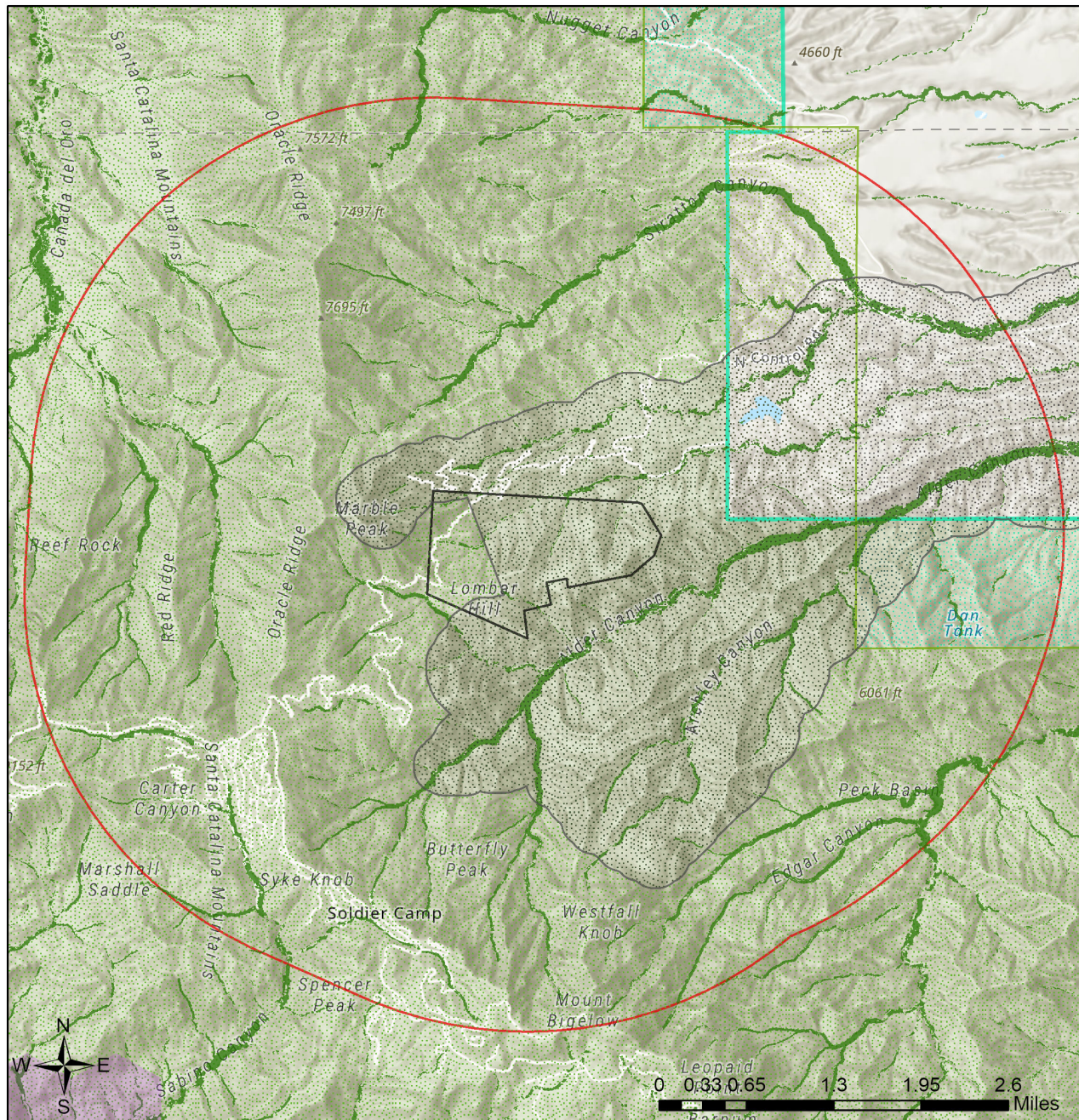


- | | |
|-----------------------|---------------------------|
| Critical Habitat | National Park/Mon. |
| Wildlife Connectivity | Private |
| Pinal County Riparian | State & Regional Parks |
| AZ Game & Fish Dept. | State Trust |
| BLM | US Forest Service |
| BOR | Wildlife Area/Refuge |
| Indian Res. | Buffered Project Boundary |
| Military | Project Boundary |
| Mixed/Other | |

Project Size (acres): 816.49
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County(s): Pima
AGFD Region(s): Tucson
Township/Range(s): T11S, R16E
USGS Quad(s): MOUNT BIGELOW

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Arizona Game and Fish Department

Wedgetail Exploration Drilling Important Areas

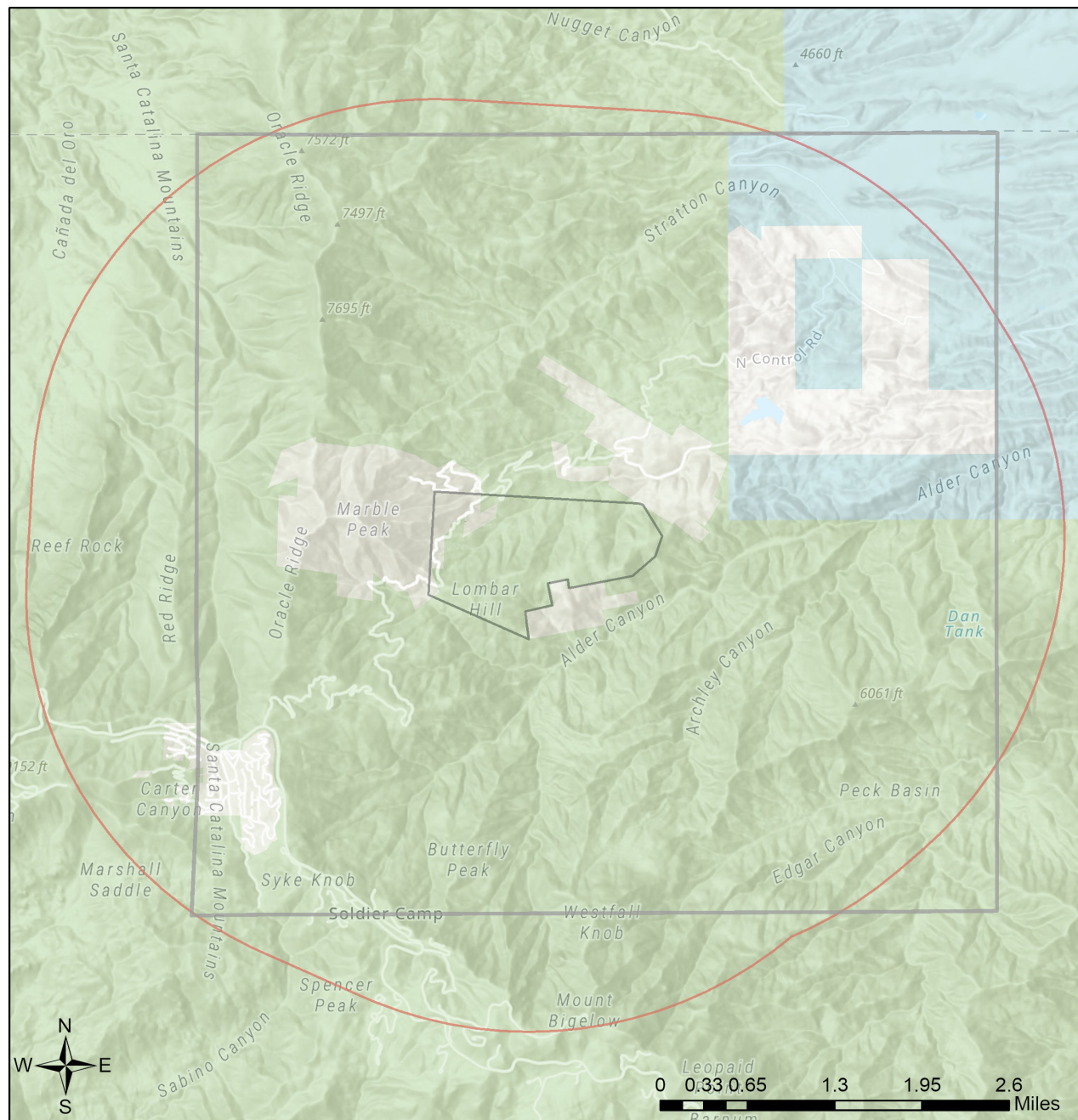


- Buffered Project Boundary
- Project Boundary
- Important Bird Areas
- Critical Habitat
- Pinal County Riparian
- Important Connectivity Zones
- Wildlife Connectivity

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Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community
Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Wedgetail Exploration Drilling Township/Ranges and Land Ownership



- Buffered Project Boundary
- Project Boundary
- AZ Game & Fish Dept.
- BLM
- BOR
- Indian Res.
- Military
- Mixed/Other
- National Park/Mon.
- Private
- State & Regional Parks
- State Trust
- US Forest Service
- Wildlife Area/Refuge
- Township/Ranges

Project Size (acres): 816.49
Lat/Long (DD): 32.4676 / -110.7209
County(s): Pima
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USGS Quad(s): MOUNT BIGELOW

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community
Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Special Status Species Documented within 3 Miles of Project Vicinity

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Accipiter gentilis	Northern Goshawk	SC	S	S		1B
Bat Colony						
Carex chihuahuensis	Chihuahuan Sedge		S			
Choeronycteris mexicana	Mexican Long-tongued Bat	SC	S	S		1C
Coccyzus americanus	Yellow-billed Cuckoo (Western DPS)	LT	S	S		1A
Danaus plexippus	Monarch	C		S		
Echinocereus santaritensis	Santa Rita Hedgehog Cactus				SR	
Echinomastus erectocentrus var. erectocentrus	Needle-spined Pineapple Cactus	SC			SR	
Falco peregrinus anatum	American Peregrine Falcon	SC	S	S		1A
Leopardus pardalis	Ocelot Area of Possible Occurrence	LE				1A
Listera convallarioides	Broad-leaved Twayblade				SR	
Lithobates yavapaiensis	Lowland Leopard Frog	SC	S	S		1A
Malaxis abieticola	Slender-flowered Malaxis				SR	
Myotis thysanodes	Fringed Myotis	SC				
Platanthera limosa	Thurber's Bog Orchid				SR	
Potentilla albiflora	White-flowered Cinquefoil		S			
Sciurus arizonensis	Arizona Gray Squirrel					1B
Sigmodon ochrognathus	Yellow-nosed Cotton Rat	SC				1C
Strix occidentalis lucida	Mexican Spotted Owl	LT				1A
Viola umbraticola	Ponderosa Violet		S			

Note: Status code definitions can be found at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/statusdefinitions/>

Special Areas Documented that Intersect with Project Footprint as Drawn

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
CH for Strix occidentalis lucida	Mexican Spotted Owl Designated Critical Habitat					
Canis lupus baileyi	10J area Zone 2 for Mexican Wolf	LE,XN				
Riparian Area	Riparian Area					
Santa Catalina/Rincon - Galiuro Connectivity Assessment	Wildlife Connectivity					
Tucson Sky Islands and Sonoran Uplands IBA	Important Bird Area					

Note: Status code definitions can be found at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/statusdefinitions/>

Species of Greatest Conservation Need Predicted that Intersect with Project Footprint as Drawn, based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
<i>Accipiter gentilis</i>	Northern Goshawk	SC	S	S		1B
<i>Agosia chrysogaster</i>	Longfin Dace	SC		S		1B
<i>Aix sponsa</i>	Wood Duck					1B
<i>Ammodramus savannarum perpallidus</i>	Western Grasshopper Sparrow					1B
<i>Ammospermophilus harrisi</i>	Harris' Antelope Squirrel					1B
<i>Anthus spragueii</i>	Sprague's Pipit	SC				1A
<i>Aquila chrysaetos</i>	Golden Eagle	BGA		S		1B
<i>Aspidoscelis flagellicauda</i>	Gila Spotted Whiptail					1B
<i>Baeolophus ridgwayi</i>	Juniper Titmouse					1C
<i>Buteo regalis</i>	Ferruginous Hawk	SC		S		1B
<i>Buteo swainsoni</i>	Swainson's Hawk					1C
<i>Coccythraustes vespertinus</i>	Evening Grosbeak					1B
<i>Coccyzus americanus</i>	Yellow-billed Cuckoo (Western DPS)	LT	S			1A
<i>Coluber bilineatus</i>	Sonoran Whipsnake					1B
<i>Corynorhinus townsendii pallescens</i>	Pale Townsend's Big-eared Bat	SC	S	S		1B
<i>Crotalus cerberus</i>	Arizona Black Rattlesnake					1B
<i>Crotalus tigris</i>	Tiger Rattlesnake					1B
<i>Cynanthus latirostris</i>	Broad-billed Hummingbird		S			1B
<i>Cynomys ludovicianus</i>	Black-tailed Prairie Dog	CCA		S		1A
<i>Cyrtonyx montezumae</i>	Montezuma Quail					1C
<i>Dipodomys spectabilis</i>	Banner-tailed Kangaroo Rat			S		1B
<i>Empidonax fulvifrons pygmaeus</i>	Northern Buff-breasted Flycatcher	SC	S			1B
<i>Empidonax traillii extimus</i>	Southwestern Willow Flycatcher	LE				1A
<i>Euderma maculatum</i>	Spotted Bat	SC	S	S		1B
<i>Eugenes fulgens</i>	Rivoli's Hummingbird					1B
<i>Eumops perotis californicus</i>	Greater Western Bonneted Bat	SC		S		1B
<i>Falco peregrinus anatum</i>	American Peregrine Falcon	SC	S	S		1A
<i>Glaucidium gnoma gnoma</i>	Mountain Pygmy-owl					1B
<i>Haliaeetus leucocephalus</i>	Bald Eagle	SC, BGA	S	S		1A
<i>Heloderma suspectum</i>	Gila Monster					1A
<i>Hypsiglena sp. nov.</i>	Hooded Nightsnake					1B
<i>Ictinia mississippiensis</i>	Mississippi Kite					1B
<i>Incilius alvarius</i>	Sonoran Desert Toad					1B
<i>Junco phaeonotus</i>	Yellow-eyed Junco		S			1B
<i>Kinosternon sonoriense sonoriense</i>	Desert Mud Turtle			S		1B
<i>Lampornis clemenciae</i>	Blue-throated Hummingbird					1B
<i>Lasiurus blossevillii</i>	Western Red Bat		S			1B

Species of Greatest Conservation Need Predicted that Intersect with Project Footprint as Drawn, based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Lasiurus xanthinus	Western Yellow Bat		S			1B
Leopardus pardalis	Ocelot	LE				1A
Leptonycteris yerbabuenae	Lesser Long-nosed Bat	SC				1A
Lepus alleni	Antelope Jackrabbit					1B
Lithobates yavapaiensis	Lowland Leopard Frog	SC	S	S		1A
Megascops trichopsis	Whiskered Screech-owl		S			1B
Melanerpes uropygialis	Gila Woodpecker					1B
Meleagris gallopavo mexicana	Gould's Turkey		S			1B
Melospiza lincolni	Lincoln's Sparrow					1B
Micrathene whitneyi	Elf Owl					1C
Micruroides euryxanthus	Sonoran Coralsnake					1B
Myiarchus tuberculifer	Dusky-capped Flycatcher					1B
Myiarchus tyrannulus	Brown-crested Flycatcher					1C
Myiodynastes luteiventris	Sulphur-bellied Flycatcher		S			1B
Myotis occultus	Arizona Myotis	SC		S		1B
Myotis velifer	Cave Myotis	SC		S		1B
Myotis yumanensis	Yuma Myotis	SC				1B
Nyctinomops femorosaccus	Pocketed Free-tailed Bat					1B
Odocoileus virginianus	White-tailed Deer					1B
Oreoscoptes montanus	Sage Thrasher					1C
Oreothlypis luciae	Lucy's Warbler					1C
Panthera onca	Jaguar	LE				1A
Passerculus sandwichensis	Savannah Sparrow					1B
Patagioenas fasciata	Band-tailed Pigeon					1C
Peucaea botterii arizonae	Arizona Botteri's Sparrow			S		1B
Peucaea carpalis	Rufous-winged Sparrow					1B
Peucedramus taeniatus	Olive Warbler					1C
Phrynosoma solare	Regal Horned Lizard					1B
Picoides arizonae	Arizona Woodpecker		S			1B
Progne subis hesperia	Desert Purple Martin			S		1B
Psiloscoptes flammeolus	Flammulated Owl					1C
Sciurus arizonensis	Arizona Gray Squirrel					1B
Setophaga petechia	Yellow Warbler					1B
Sorex arizonae	Arizona Shrew	SC	S			1B
Sphyrapicus nuchalis	Red-naped Sapsucker					1C
Spizella atrogularis	Black-chinned Sparrow					1C
Spizella breweri	Brewer's Sparrow					1C
Strix occidentalis lucida	Mexican Spotted Owl	LT				1A
Sturnella magna	Eastern Meadowlark					1C

Species of Greatest Conservation Need Predicted that Intersect with Project Footprint as Drawn, based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Tadarida brasiliensis	Brazilian Free-tailed Bat					1B
Troglodytes pacificus	Pacific Wren					1B
Tyrannus crassirostris	Thick-billed Kingbird		S			1B
Vireo bellii arizonae	Arizona Bell's Vireo					1B
Vireo vicinior	Gray Vireo		S			1C
Vulpes macrotis	Kit Fox	No Status				1B

Species of Economic and Recreation Importance Predicted that Intersect with Project Footprint as Drawn

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Cyrtonyx montezumae	Montezuma Quail					1C
Meleagris gallopavo	Wild Turkey					
Odocoileus virginianus	White-tailed Deer					1B
Patagioenas fasciata	Band-tailed Pigeon					1C
Pecari tajacu	Javelina					
Puma concolor	Mountain Lion					
Sciurus nayaritensis	Mexican Fox Squirrel					
Ursus americanus	American Black Bear					
Zenaida asiatica	White-winged Dove					
Zenaida macroura	Mourning Dove					

Project Type: Mining, Exploration

Project Type Recommendations:

Minimize the potential introduction or spread of exotic invasive species, including aquatic and terrestrial plants, animals, insects and pathogens. Precautions should be taken to wash and/or decontaminate all equipment utilized in the project activities before entering and leaving the site. See the Arizona Department of Agriculture website for a list of prohibited and restricted noxious weeds at <https://www.invasivespeciesinfo.gov/unitedstates/az.shtml> and the Arizona Native Plant Society <https://aznps.com/invas> for recommendations on how to control. To view a list of documented invasive species or to report invasive species in or near your project area visit iMapInvasives - a national cloud-based application for tracking and managing invasive species at <https://imap.natureserve.org/imap/services/page/map.html>.

- To build a list: zoom to your area of interest, use the identify/measure tool to draw a polygon around your area of interest, and select "See What's Here" for a list of reported species. To export the list, you must have an account and be logged in. You can then use the export tool to draw a boundary and export the records in a csv file.

Minimization and mitigation of impacts to wildlife and fish species due to changes in water quality, quantity, chemistry, temperature, and alteration to flow regimes (timing, magnitude, duration, and frequency of floods) should be evaluated. Minimize impacts to springs, in-stream flow, and consider irrigation improvements to decrease water use. If dredging is a project component, consider timing of the project in order to minimize impacts to spawning fish and other aquatic species (include spawning seasons), and to reduce spread of exotic invasive species. We recommend early direct coordination with Project Evaluation Program for projects that could impact water resources, wetlands, streams, springs, and/or riparian habitats.

The Department recommends that wildlife surveys are conducted to determine if noise-sensitive species occur within the project area. Avoidance or minimization measures could include conducting project activities outside of breeding seasons.

Based on the project type entered, coordination with the Office of Surface Mining may be required (<http://www.osmre.gov/index.shtm>).

Based on the project type entered, coordination with State Historic Preservation Office may be required (<http://azstateparks.com/SHPO/index.html>).

Pre- and post-survey/monitoring should be conducted to determine alternative access/exits to mines and to identify and/or minimize potential impacts to bat species. For further information when developing alternatives to mine closures, contact the Arizona Game and Fish Department Nongame Bat Coordinator at the Main Office in Terrestrial Branch, <https://www.azgfd.com/agency/offices> or (602) 942-3000.

Based on the project type entered, coordination with Arizona Department of Environmental Quality may be required (<http://www.azdeq.gov/>).

Avoid/minimize wildlife impacts related to contacting hazardous and other human-made substances in facility water collection/storage basins, evaporation or settling ponds and/or facility storage yards. Design slopes to discourage wading birds and use fencing, netting, hazing or other measures to exclude wildlife.

Project Location and/or Species Recommendations:

Your project site is within one or more defined **Areas of Possible Occurrence**. Please follow Department protocols while working within an Area of Potential Occurrence at U:\Agency Directives\Jaguar Ocelot and Mexican Wolf Management Directive 20171215.pdf

HDMS records indicate that one or more native plants listed on the **Arizona Native Plant Law and Antiquities Act** have been documented within the vicinity of your project area. Please contact:

Arizona Department of Agriculture

1688 W Adams St.

Phoenix, AZ 85007

Phone: 602.542.4373

<https://agriculture.az.gov/sites/default/files/Native%20Plant%20Rules%20-%20AZ%20Dept%20of%20Ag.pdf> starts on page 44

Analysis indicates that your project is located in the vicinity of an identified **wildlife habitat connectivity feature**. The **Detailed Wildlife Connectivity Assessments** represent ideal connections within or between intact blocks or core habitats. The blocks are currently disconnected or isolated and the linkages should be examined for improving permeability, or are currently intact and in need of preservation and/or enhancement. The reports provide recommendations for opportunities to preserve or enhance permeability. Project planning and implementation efforts should focus on maintaining and improving opportunities for wildlife permeability. For information pertaining to the linkage assessment and wildlife species that may be affected, please refer

to: <https://www.azgfd.com/wildlife/planning/habitatconnectivity/identifying-corridors/>

Please contact the Project Evaluation Program (pep@azgfd.gov) for specific project recommendations.

The analysis has detected one or more **Important Bird Areas** within your project vicinity. Please see http://aziba.org/?page_id=38 for details about the Important Bird Area(s) identified in the report.

HDMS records indicate that one or more **Listed, Proposed, or Candidate** species or **Critical Habitat** (Designated or Proposed) have been documented in the vicinity of your project. The Endangered Species Act (ESA) gives the US Fish and Wildlife Service (USFWS) regulatory authority over all federally listed species. Please contact USFWS Ecological Services Offices at <https://www.fws.gov/office/arizona-ecological-services> or:

Phoenix Main Office

9828 North 31st Avenue #C3
Phoenix, AZ 85051-2517
Phone: 602-242-0210
Fax: 602-242-2513

Tucson Sub-Office

201 N. Bonita Suite 141
Tucson, AZ 85745
Phone: 520-670-6144
Fax: 520-670-6155

Flagstaff Sub-Office

SW Forest Science Complex
2500 S. Pine Knoll Dr.
Flagstaff, AZ 86001
Phone: 928-556-2157
Fax: 928-556-2121

HDMS records indicate that **Peregrine Falcons** have been documented within the vicinity of your project area. Please review the Peregrine Falcon Management Guidelines at: <https://s3.amazonaws.com/azgfd-portal-wordpress/PortallImages/files/wildlife/planningFor/wildlifeFriendlyGuidelines/peregrineFalconConservGuidelines.pdf>.

This review has identified **riparian areas** within the vicinity of your project. During the planning stage of your project, avoid, minimize, or mitigate any potential impacts to riparian areas identified in this report. Riparian areas play an important role in maintaining the functional integrity of the landscape, primarily by acting as natural drainages that convey water through an area, thereby reducing flood events. In addition, riparian areas provide important movement corridors and habitat for fish and wildlife. Riparian areas are channels that contain water year-round or at least part of the year. Riparian areas also include those channels which are dry most of the year, but may contain or convey water following rain events. All types of riparian areas offer vital habitats, resources, and movement corridors for wildlife. The Pinal County Comprehensive Plan (i.e. policies 6.1.2.1 and 7.1.2.4), Open Space and Trails Master Plan, Drainage Ordinance, and Drainage Design Manual all identify riparian area considerations, guidance, and policies. Guidelines to avoid, minimize, or mitigate impacts to riparian habitat can be found at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/>. Based on the project type entered, further consultation with the Arizona Game and Fish Department and Pinal County may be warranted.